

Introduction to Air Permit to Install

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1

Who will you hear from?

- Michelle Rogers,
AQD Permit Engineer



- Catherine Asselin,
AQD Permit Engineer



- Jenifer Dixon
OEA Air Specialist



2

Webinar Set Up

- All lines will be muted
- Questions can be sent to us via the question/chat box
- We will record webinar and post online



Introduction to Air Permit to Install

- What is a Permit to Install (PTI)?
- Preparing your PTI Application
- Where does my application go?
- Permit Conditions
- What happens when the permit gets issued?
- VOIDS, errors, & denials, oh my!



4

What is a Permit To Install?

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994
PART 55
AIR POLLUTION CONTROL



5

What is a Permit To Install?

- 324.5503 Powers of department.**
- The department may do 1 or more of the following:
 - (a) Promulgate rules** to establish standards for ambient air quality and for emissions.
 - (b) Issue permits** for the construction and operation of sources, processes, and process equipment, subject to enforceable emission limitations and standards and other conditions reasonably necessary to assure compliance with:
 - all applicable requirements of this part,
 - rules promulgated under this part, and
 - the clean air act.



6

What is a Permit To Install?

ACT 451
Natural Resources and
Environmental Protection Act

Part 55 of Act 451:
Air Pollution Control

Air Pollution Control Rules

Part 2: Air Use Approval



7

What is a Permit To Install?

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

PART 2. AIR USE APPROVAL

R 336.1201 Permits to install.

Rule 201. (1) Except as allowed in R 336.1202, R 336.1277 to R 336.1290, or R 336.2823(15) a person shall not install, construct, reconstruct, relocate, or modify any process or process equipment, including control equipment pertaining thereto, which may emit any of the following, unless a permit to install which authorizes such action is issued by the department:

(a) Any air pollutant regulated by title I of the clean air act and its associated rules, including

40 C.F.R. §51.165 and §51.166, adopted by reference in R 336.1299.

(b) Any air contaminant.

A person who plans to install, construct, reconstruct, relocate, or modify any such

8

Who Needs a PTI?

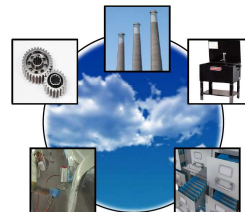
- Rule 201: Essentially, EVERY process that emits air contaminants needs a PTI
- UNLESS your process is exempt



9

Potential to Emit Workbook

A Practical Guide to Calculating and Evaluating
Your Potential to Emit Air Contaminants



SEPTEMBER 2015

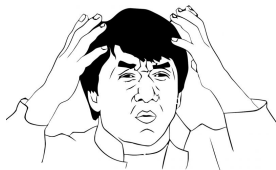
DEQ
Michigan Department of Environmental Quality
Office of Environmental Assessment
Clean Air Assessment Program

www.mdeq.state.mi.us
(517) 333-1370

10

Who Needs a PTI? (continued)

- Exemptions: Rules 278 – 290
- Rule 278: Exclusion from Exemption.



11

Who Needs a PTI? (continued)

Significance Levels:

– CO	100 tpy
– NOx	40 tpy
– SO2	40 tpy
– PM	25 tpy
– PM10	15 tpy
– PM2.5	10 tpy
– VOC	40 tpy
– Lead	0.6 tpy



12

Who Needs a PTI? (continued)

- Project: Install 2 engines.
- Engine1 NOx = 25 tpy
- Engine2 NOx = 25 tpy
- Total NOx = 50 tpy
- 50 tpy > 40 tpy ("Significant")



Can't use exemptions, need a PTI for the project.

13



14

Department of Environmental Quality

about the DEQ

AIR QUALITY

PROTECTING MICHIGAN'S AIR

The DEQ ensures that Michigan's air remains clean by regulating sources of air pollutants to minimize adverse impact on human health and the environment. Goals are to meet and maintain air quality standards, limit emissions of hazardous and toxic pollutants, and inform the public about current air conditions.

- Look Online!

www.michigan.gov/air

- DEQ website → "Air"
- "Compliance" and
- "Permits"



15

Preparing your PTI Application

- Check out the "Permit to Install Workbook"
- (Google "Michigan PTI Workbook")



16

PERMIT TO INSTALL

Workbook

A Practical Guide to Completing an Air Permit Application

DEQ

Michigan Department of Environmental Quality
Office of Environmental Assessment and Air Quality Division
www.michigan.gov/deq 800-942-6676

March 2012




17

Preparing your PTI Application

- [Michigan Air Permits System](#)




18



Michigan Air Permits System

Information 1-800-662-9278



[Michigan.gov/Home](#)
[DEQ Home | Michigan Air Permits System Home](#)

PERMIT SPOTLIGHT:

USEPA RICE MACT Navigation Tool
 Consideration of Clean Coal Technology in Air Use Permitting Interested Party Letter
 Fact Sheet on Environmental Permitting of Coal Fired Power Plants in Michigan
Issue Resolution Process Decisions, Rule 225
 Rule 225 Variance Document
 Upcoming Permit to Install and Renewable Operating Permit Workshops
 Michigan's PTI Application Review Process
 Permit to Install Determining Applicability Guidebook
 Cozone Nonattainment and New Source Review Q&A

[Air Rain](#)
[APS Home](#)
[CAIR](#)
[MACT/NESHAP](#)
[NOx Program](#)
[Permit Spotlight](#)
[PTI / NSR](#)
[ROP](#)
[Title V](#)

PERMIT TO INSTALL (PTI)

NEW SOURCE REVIEW (NSR)

- N [NSR Public Notice Documents](#)
- A [Permit Soaring Meeting \(PSM Scheduling Procedures\)](#)
- Z [Application Form, Instructions and Guidance Documents](#)
- A [General Permits - Application Forms and Instructions](#)
- C [Coal-Fired Power Plant Applications](#)
- R [Other Applications or Information](#)
- N [NSR Finding Application Query](#)
- P [Active PTIs in Final Conditions](#)
- B [PTI Application Workshop Series](#)
- S [Permit Statistics](#)
- M [Modeling & Meteorology](#)
- C [Clean Corporate Citizen](#)
- E [Proposals for Voluntary Permit to Install](#)
- N [New Source & Transfer of Ownership](#)

TITLE V

RENEWABLE OPERATING PERMITS (ROP)

- N [Joint Actions - Draft, Proposal and Final Permits](#)
- A [Issues of the ROP Program](#)
- Z [E-Related Forms and Software](#)
- A [e After ROP - Source Requirements After Issuance of an ROP](#)
- I [Final LRs - All ROP Documents](#)
- C [Commercial Assistance Program](#)
- R [Sign Support Information & Background](#)
- G [ating Out of Title V](#)
- N [Investing Performance in Michigan - ROP Insurance](#)

[illegible]

Preparing your PTI Application





- Attend a **PTI Workshop**
 - Offered ~5 times per year
 - Next one is November 10, 2015
 - Search: *"Michigan PTI Workshop"*



21

Preparing your PTI Application


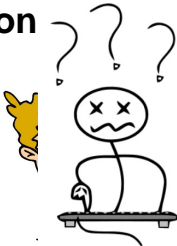
- Request a **Pre-application Meeting** with Permit Section Staff
- **517-284-6804**
 - Either sit down face-to-face, or
 - have a conference call meeting
 - Bring your emission calculations, diagrams of the process



22

Preparing your PTI Application

- Still Feeling Lost?
- Call us!
 - Environmental Assistance Center:
 - 800-662-9278



23

Where does your application go?

The diagram illustrates the workflow of a Permit to Install (PTI) application. It begins with a document labeled 'PTI Application'. An arrow points to a magnifying glass over a folder labeled 'Review', indicating the review stage. Another arrow points to a document labeled 'PERMIT TO INSTALL' with a green 'APPROVED' stamp, indicating the final outcome.

Where does your application go?

- First, Sue Thelen Screens the application for **Administrative Completeness**
 - Name and address?
 - Location of equipment?
 - Original signature?
 - 3 copies of application form?
 - 2 copies of supporting info?



25

Application Screening : Pt. 1



26



27

Application Screening: Pt. 2

- Permit Engineer screens for **"Technical Completeness"**
 - Is the project described?
 - Is there an operating schedule?
 - Are rules and regulations identified?
 - Are emission calculations included?
 - Are the stack parameters included?
 - Is there a site map?
 - What about a process diagram?



28



Application Incomplete

- Not Technically complete
 - Application not accepted
 - "Off-Line Tracking"
 - Additional Information Request
- Goal: Technically Complete Application



29

Application Review

- Permit Engineer reviews:
 - Project plans
 - Existing equipment &/or permits
 - Emission calculations
 - Stack characteristics
 - State and Federal Regulations



30

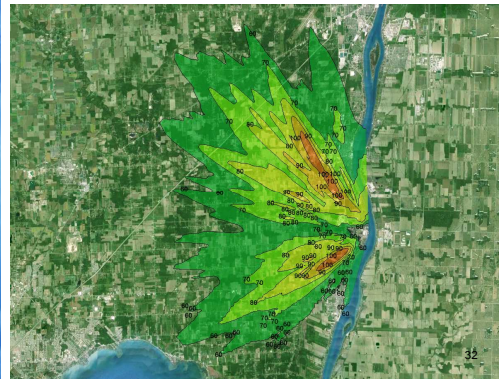
Air Dispersion Modeling

- Permit engineer may determine modeling is necessary
- AQD Guidance doc: AQD-022
 - Stack parameters
 - height, diameter, direction, obstructions
 - Exhaust Flowrate
 - Exhaust temperature
 - Pollutant emission rate



31

Air Dispersion Modeling



32

Air Dispersion Modeling

- Criteria pollutants / Federal New Source Review pollutants
 - Compare to NAAQS & PSD Increment
- Toxic Air Contaminants (TACs)
 - Compare to health-based screening levels

State Federal



33

Toxic Air Contaminants (TACs)

- Michigan Rules 224 & 225
- health-based screening levels for carcinogens and non-carcinogens
- Can look up online
 - (DEQ → Air → Permits)



34

Permit Conditions



- Flexible
- FGENGI natural gas



ons
of three



35

Permit Conditions

- Emission Limits
- Material Limits
- Process/Operational Restrictions
- Design/Equipment Parameters
- Testing/Sampling
- Monitoring/Recordkeeping
- Reporting
- Stack/Vent Restrictions
- Other Requirements



36

Permit Conditions					
<u>I. EMISSION LIMITS</u>					
Pollutant	Limit	Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO _x	2.0 lb/hr	Test Protocol*	EUENGINE1	SC V.1	40 CFR 52.21(c) & (d)
2. NO _x	30.0 tpy	12-month rolling time period as determined at the end of each calendar month	EUENGINE1	SC VI.3	R 336.1205
*Test Protocol shall specify averaging time.					



37

Permit Conditions					
<u>II. MATERIAL LIMITS</u>					
Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Natural Gas	50,000 MMscf	12-month rolling time period as determined at the end of each calendar month.	EUENGINE1	SC VI.7 and Appendix A	R 336.1205, 40 CFR 52.21(c) & (d)



38

Permit Conditions	
<u>III. PROCESS/OPERATIONAL RESTRICTIONS</u>	
1. The permittee shall not operate EUENGINE1 for more than 500 hours per 12-month rolling time period. (R 336.1205(3))	
	Underlying Applicable Requirement



39

Permit Conditions	
<u>IV. DESIGN/EQUIPMENT PARAMETERS</u>	
1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the natural gas usage for EUENGINE1 on a continuous basis.	



40

Permit Conditions	
<u>V. TESTING / SAMPLING</u>	
1. The permittee shall verify NO _x and CO emission factors used to calculate emissions from EUENGINE1, by testing at owner's expense, in accordance with Department requirements.	



41

Permit Conditions	
<u>VI. MONITORING / RECORDKEEPING</u>	
1. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NO _x emission calculation records for EUENGINE1, as required by SC I.1 and Appendix A. The permittee shall keep all records on file at the facility and make them available to the Department upon request.	




42

Permit Conditions

VII. REPORTING

(As required by state and federal regulations)




43

Permit Conditions

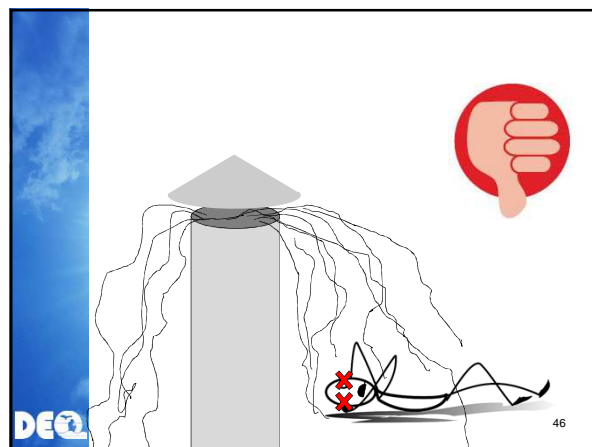
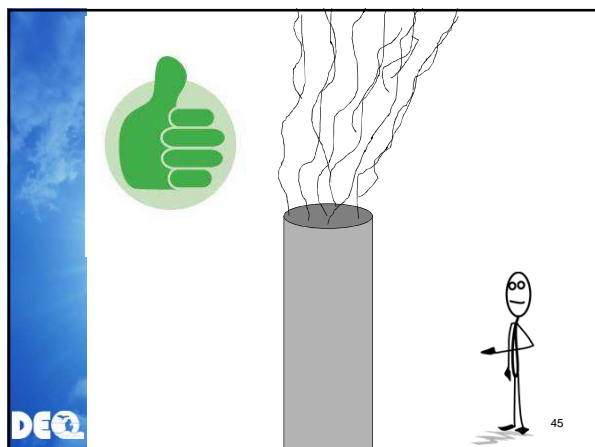
VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVENGINE	12	30	R 336.1225, 40 CFR 52.21(c) & (d)



44



Draft Conditions

- Final Draft Conditions Sent to Applicant



48

Permit Approval

- Applicant Accepts the Draft Conditions



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49

Voids, Errors, & Denials, oh my!

- Questions about your permit?
- Mistake in the permit?



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50

Voids, Errors, & Denials, oh my!



- Withdrawing / Voiding a PTI application

DEQ

51

Voids, Errors, & Denials, oh my!

- Voiding a Permit to Install



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52

Voids, Errors, & Denials, oh my!

- Permit Issuance = Construction can begin!
- Construction must begin within 18 months of PTI issue date
- Construction must not be interrupted for more than 18 months



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53

Voids, Errors, & Denials oh my!

- Permit Denial



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54

Recap

- What is a Permit to Install (PTI)?
- Preparing your PTI Application
- Where does my application go?
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- What happens when the permit gets issued?
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55

Questions?



56

What's Coming Up?

Air Quality and the Nonmetallic Mineral Crushing Industry

November 18, 2015 at 10:00AM

What is the Michigan Air Emissions Reporting System (MAERS) and what is the data used for??

December 16, 2015 at 10:00AM

Air Dispersion Modeling: What the heck is it?

January 20, 2016 at 10:00AM

Please join us!



Wrap Up



- Recording
- Materials
- Evaluation



Michigan Department of Environmental Quality

800-662-9278

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59